NNSA Infrastructure Metrics

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(NA-00-20)

Key Points

- **NA-00's mission is, in part, to manage "common infrastructure and services".**

- **NA-00-20, prior to the reorganization, has made several fundamental changes to NNSA's infrastructure plans and metrics.**

- **These changes need to be expanded to the building system level.**

NA-00 Management Approach

- **Management Philosophy**
- **Basis for Change**
- **NA-00 Organizational Structure**

"I want you to find a bold and innovative way to do everything exactly the same way it's been done for 25 years."

Management Philosophy

- **Responsibility**
- **Commitments**
- **Follow Direction**
- **Solving Problems**
- **Mistakes**
- **Decision Making**
- **Doing Your Homework**
- **Candor**

- **Technical Competence & Credibility**
- **Responsibility & Discipline**
- **Symptoms, Illnesses & Details**
- **Integrity**
- **Promotions/Evaluations/ Removal**
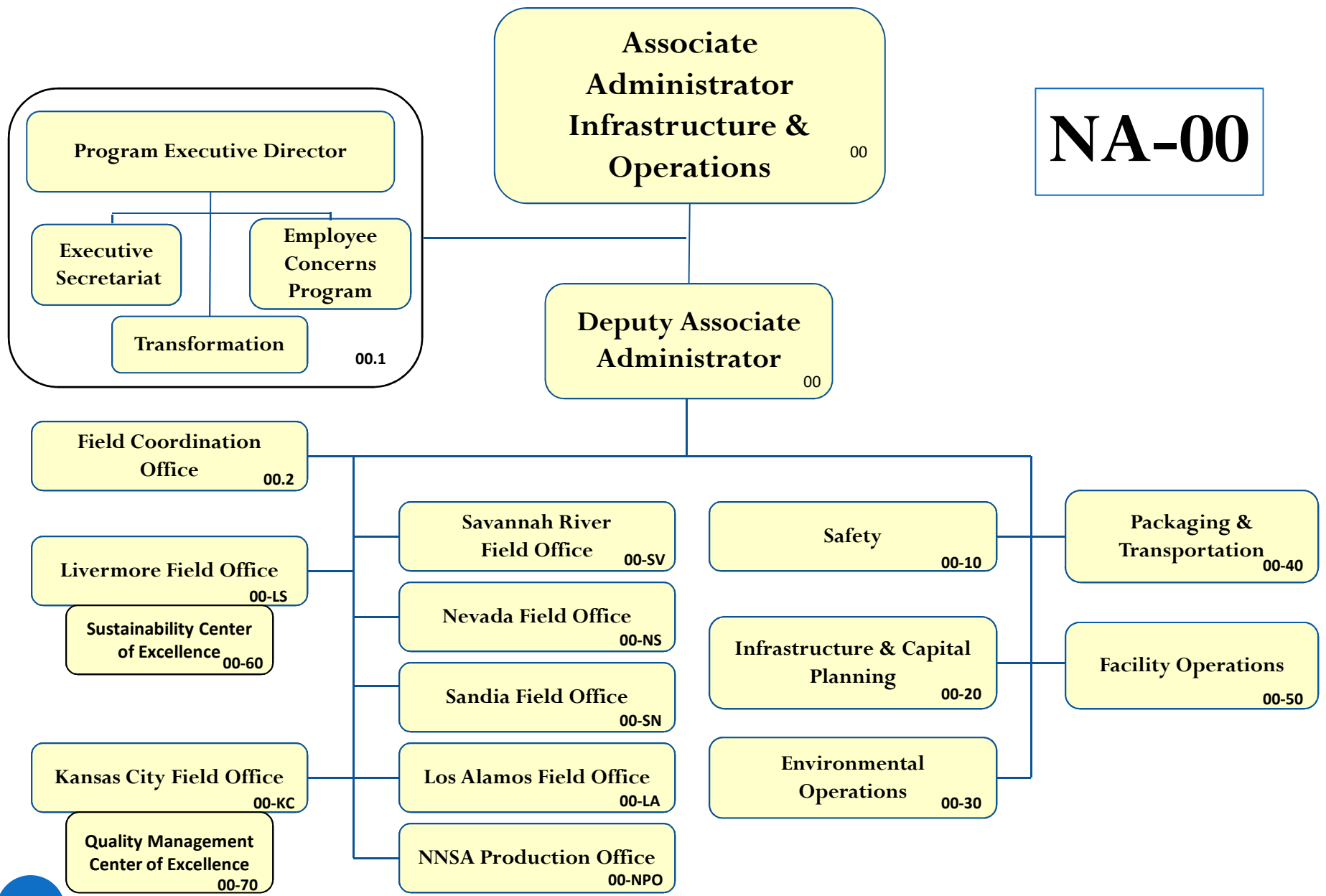- **Bad News/Good News**
- **Bum Dope**

In the middle of difficulty lies opportunity.
-Albert Einstein

- **Seizing An Opportunity – Not Solving A Problem**

- **Work Together**

- **Revitalize Our Infrastructure**

- **Organizational Structure**

- **Empowerment**

- **Manager's Challenge**

NA-00

Associate Administrator Infrastructure & Operations — 00

Program Executive Director — 00.1
- Executive Secretariat
- Employee Concerns Program
- Transformation

Deputy Associate Administrator — 00

Field Coordination Office — 00.2

Livermore Field Office — 00-LS
- Sustainability Center of Excellence — 00-60

Kansas City Field Office — 00-KC
- Quality Management Center of Excellence — 00-70

Savannah River Field Office — 00-SV
Nevada Field Office — 00-NS
Sandia Field Office — 00-SN
Los Alamos Field Office — 00-LA
NNSA Production Office — 00-NPO

Safety — 00-10
Infrastructure & Capital Planning — 00-20
Environmental Operations — 00-30

Packaging & Transportation — 00-40
Facility Operations — 00-50

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NA-00 Infrastructure Responsibilities

- Site landlord, responsible for common infrastructure and services, with programs responsible for program specific infrastructure and services.

- "Condo Model".

- "Common" vs "Program Specific" has been worked out for FY 2013 CR.

- FY 2014 Budget proposal worked out with Defense Programs, under review by budget office, for full implementation in FY 2015 budget cycle.

- **Develop a data-driven, risk-based strategy and plan for management of NNSA infrastructure.**
- **Refine understanding of the vulnerability of core capabilities to infrastructure condition.**
- **"Mine" for metrics that measure progress and point to opportunities to improve.**
- **Develop new ways of thinking about metrics to avoid having to go through financially based measures to understand the infrastructure risk to mission.**

Recent Changes

- **TYSP implements President's Budget; "Attachments" become data stored in NNSA Infrastructure Collaboration Center (NICC) on iPortal and are not part of TYSP.**

- **Data ("Attachments" plus issues) covers site's entire planning horizon, TYSP describes actions for next FYNSP plus 5 years.**

- **Stable guidance for TYSP and IDAC; manage changes via Fed/M&O Data Management Committee.**

- **IDAC contains data repository and becomes a resource for all NNSA infrastructure efforts.**

- **All submissions are electronic – No Paper.**

Guiding Principles for IDAC and TYSP's

1. Sites enter data with precision commensurate with uncertainty; Users perform analysis.

2. Protected frank and open discussion before decision; Openness after decision.

3. Integrate with PPBE process.

4. Data feeds programming decisions; TYSP implements Program of Record (POR).

5. NNSA's acceptance of TYSP means NNSA agrees the TYSP implements the President's Budget as proposed to Congress and agrees with the POR.

6. TYSP's and IDAC are tactical implementation of integrated planning.

- Data previously collected in TYSP, entered in real time, certified correct annually, plus "Top Five" issues and "Delta between POR and Success".

- New data such as accounting data for capital assets, land use, DM vs Recap for projects, completion of Exp/GPP, and correlation of assets to core capabilities.

- Estimates to only 2 significant figures.

- No FIMS data except for PSN and name.

- FIOA Exemption Five (Pre-Decisional) until issues are addressed in President's Budget.

New Metrics

- **Fitness for Mission** – Ratio of DM plus needed recapitalization to RPV.

- **Recapitalization Ratio** – Ratio of capitalized costs in a specific time period to RPV at the end of the time period

- **Latency of Planning** – Mean/Median of time it needed to take a recapitalization need from first identification to completion.

- **Stability of Planning** – Mean/Median of the amount of scope the "disappears" as measured by number of projects and total cost.

Updated Corporate Facilities Management Report

- A data-driven recommended strategy and path forward for managing NNSA infrastructure.

- Analyze operating facilities by core capability, site, asset type, attribute of interest, and entire NSE for MC, MD, and NMD

- Analyze using Fitness for Mission, Recap Ratio, Latency and Stability of Planning.

- Forecast and analyze DM and recapitalization.

- TYSP review and acceptance nearing completion.
- IDAC data submitted and integrated with FY 2011 FIMS snapshot.
- IDAC data being scrubbed for completeness and consistency.
- Working with NA-00-50 on development of infrastructure planning to support execution.
- Working with Defense Programs on the FY 2014 SSMP.

NNSA Facilities at Risk

Primary Core Capability	Number Facilities FCI >= 9%
C01: Design, Certification, Testing, Experiments, Surveillance and ST&E base	676
C02: Plutonium	108
C03: Uranium	168
C04: Tritium	5
C05: High Explosives	277
C06: Non-nuclear	22
C07: Weapons Assembly/Disassembly	190
C08: Transportation	2
C09: Special Nuclear Material Accountability, Storage, Protection, Handling and Disposition	26
C10: Enabling Infrastructure	1
C11: Counterterrorism & Counter-Proliferation	64
C12: Support of Other Mission/Program Capability	74
C13: Federal Management and Oversight	5
No Capability	79
(blank)	43
Grand Total	1,760

NNSA Facilities At Risk

| Primary Core Capability	FCI >= 9%	Deferred Maintenance	RPVs
C01: Design, Certification, Testing, Experiments, Surveillance and ST&E base	29.83%	972,781,302	3,260,882,505
C02: Plutonium	36.49%	109,654,267	300,541,811
C03: Uranium	23.69%	242,557,151	1,023,912,611
C04: Tritium	14.34%	50,255,206	350,365,798
C05: High Explosives	31.59%	170,107,842	538,459,707
C06: Non-nuclear	26.59%	132,033,000	496,559,886
C07: Weapons Assembly/Disassembly	35.79%	204,318,237	570,816,440
C08: Transportation	16.91%	1,735,915	10,268,311
C09: Special Nuclear Material Accountability, Storage, Protection, Handling and Disposition	28.52%	13,789,652	48,344,681
C10: Enabling Infrastructure	61.25%	143,625	234,478
C11: Counterterrorism & Counter-Proliferation	27.96%	49,757,853	177,940,789
C12: Support of Other Mission/Program Capability	31.19%	121,427,216	389,278,732
C13: Federal Management and Oversight	20.27%	6,211,780	30,650,409
No Capability	31.41%	63,646,901	202,840,701
(blank)	12.36%	133,864,666	1,082,741,634
Grand Total	26.78%	2,272,285,613	8,483,638,492

Facilities With FCI >= 9% by Core Capability
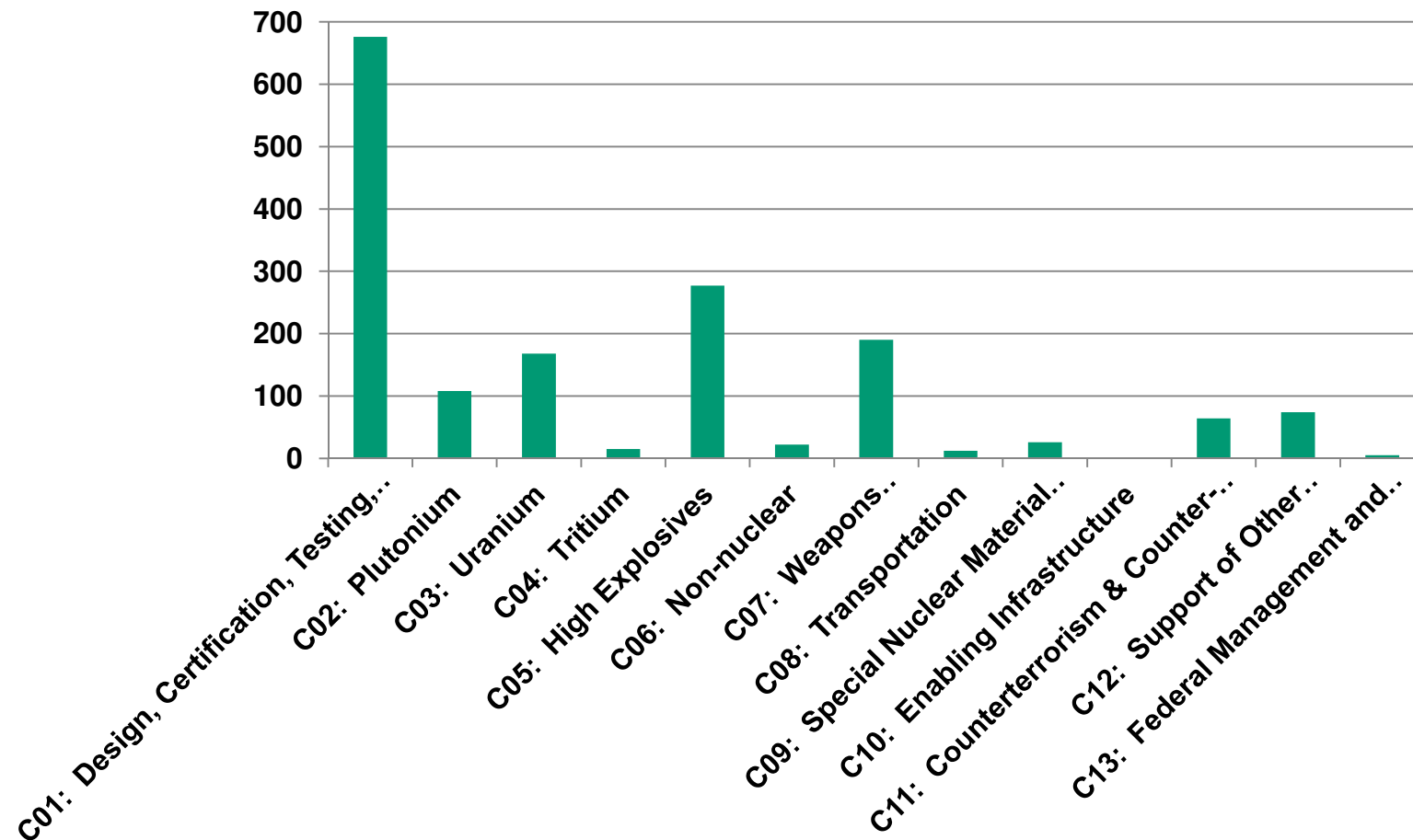
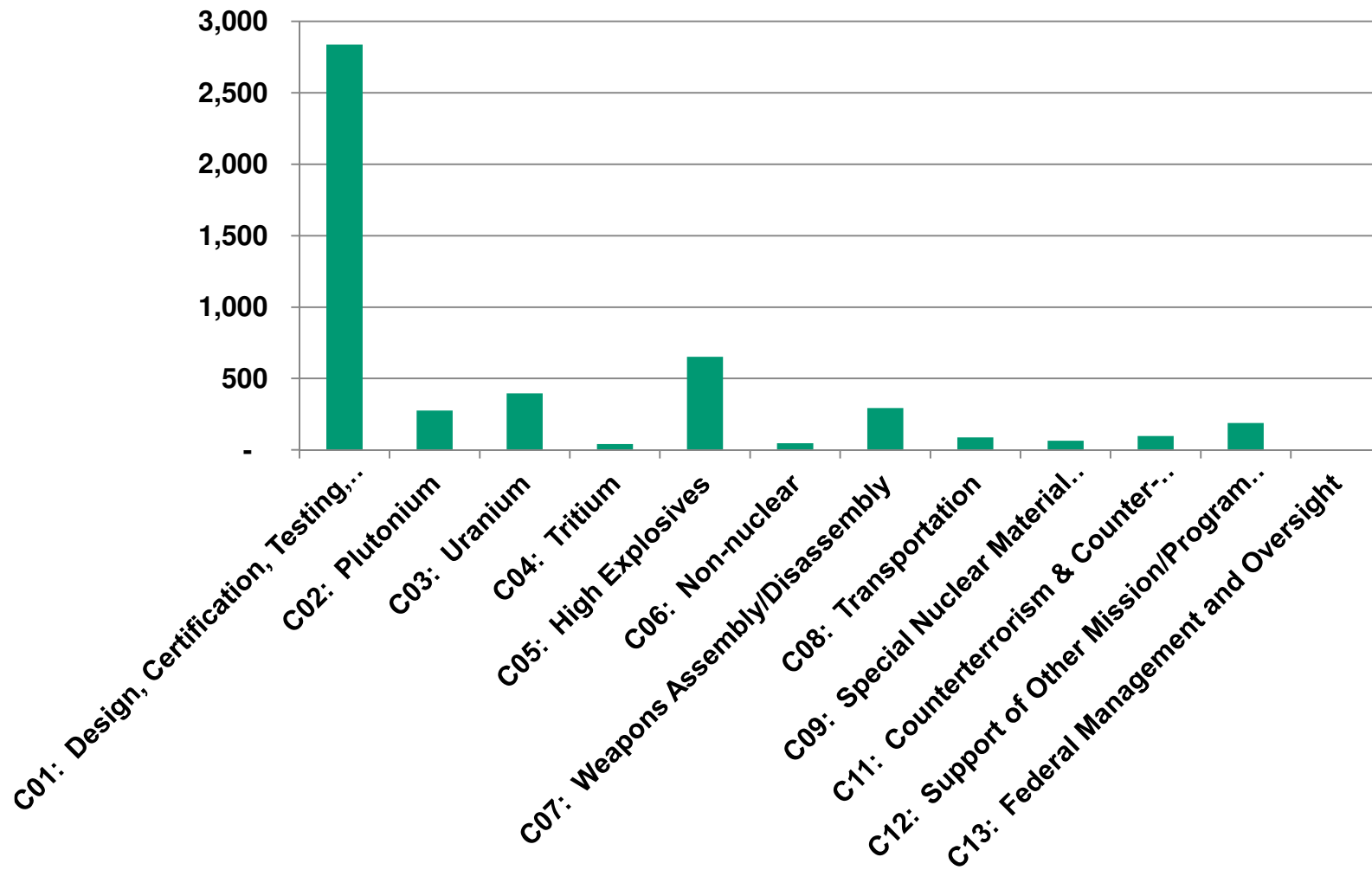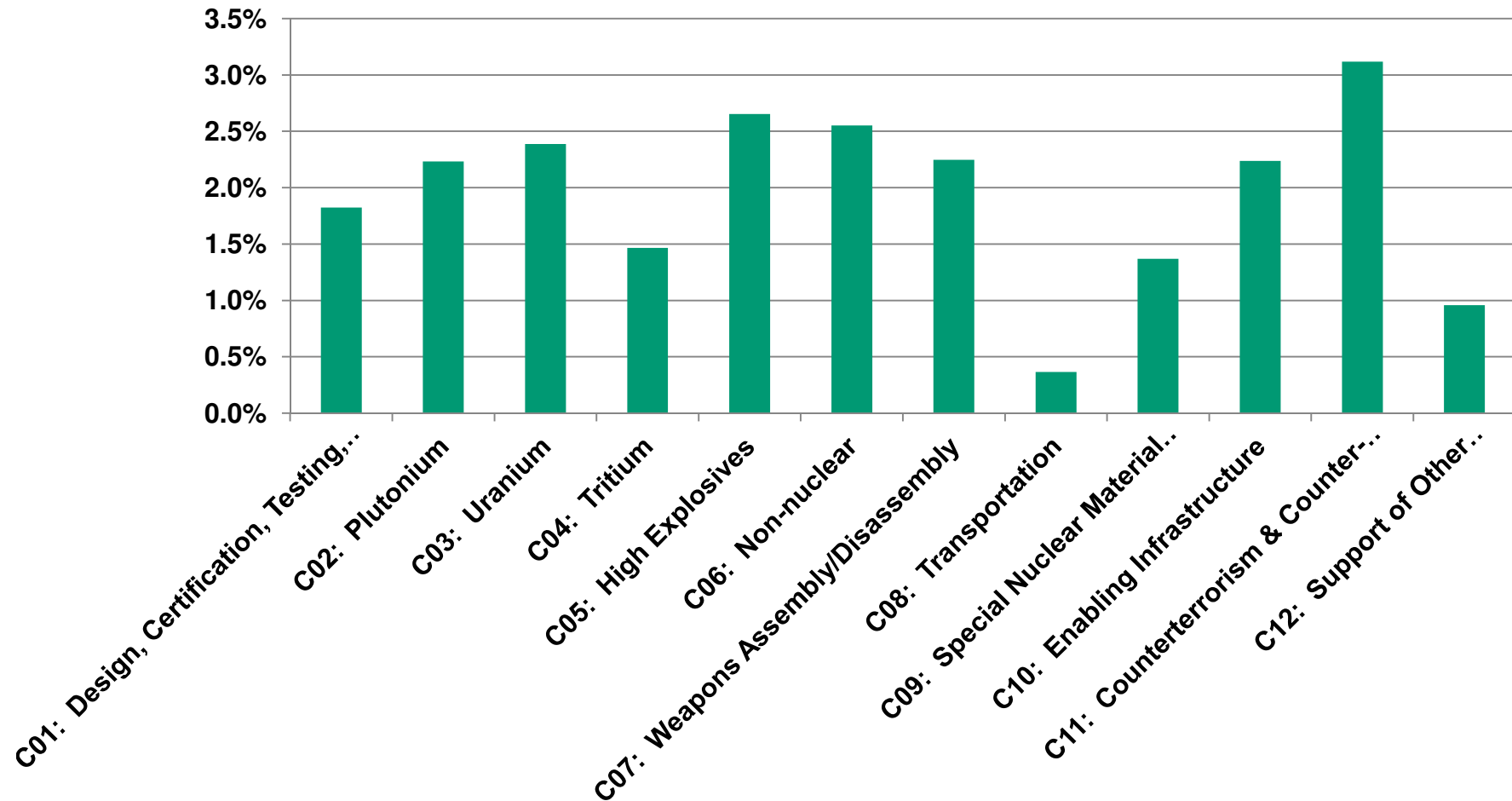# Composite FCI >= 9% by Core Capability
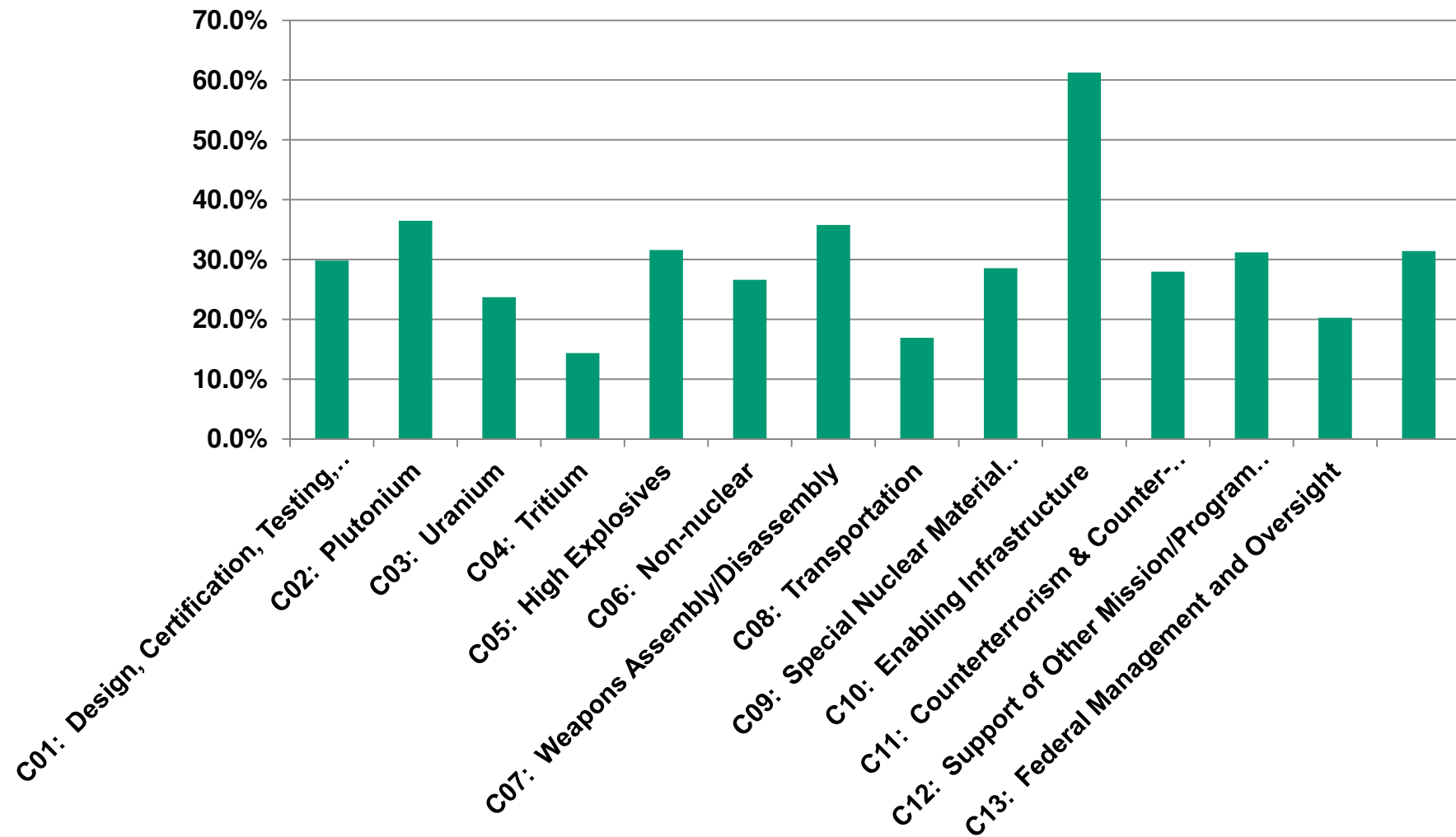
Facility by FCI < 9% by Core Capability

Composite FCI < 9% by Core Capability

What I Need From You

- **How can we measure and "roll up" the infrastructure risk to mission without going through a "dollar denominated" measure?**
- **How can we improve the "bins" of Mission Critical, Mission Dependent, and Not Mission Critical, Mission Dependent to capture the multi mission essentiality of most NNSA infrastructure?**
- **How can we take infrastructure metrics below the facility level to identify on a complex level the basic building systems amenable to complex-wide "RAMP-like" strategies?**

Back Up Slides

IDAC/Data Repository Guidance

- Guidance outlines concept and use of NICC.

- Field Office Manager control of data.

- Define data fields clearly; use definitions in old TYSP guidance when possible.

- Guidance doesn't change without coordination with sites on cost/benefit.

- Discuss uses of data, including combination of data with FIMS data into flat Excel data base.

- Charter the Data Management Committee (Mission, Membership, Tasks).

- Placeholders/invitations for other NNSA program offices.

Data Update Cycle

- Sites generate data according to their internal Master Planning Process and post in "real time".

- Possible use of IDAC for quarterly submission of IFI cross cut/Quarterly Maintenance Report data.

- Site Office Managers certify on two anchor dates (April 30, October 31) that planning data submitted is most current as of month earlier (March 31, September 30).

- FIMS data downloaded as flat 2x2 data base as needed and integrated with site data to provide a master infrastructure data repository for analysis and reporting.

TYSP Guidance

- Describes implementation of Program of Record for FYNSP plus five years.

- Guidance does not change without coordination with sites, Department direction may mandate changes.

- Based on previous guidance for TYSP narrative, written for sharing with Congress without classification review.

- Due 60 days after President's Budget released; HQ would like opportunities to review early drafts.

- Approval means NNSA agrees that plan describes implementation of President's Budget.

- HQ writes a landlord level TYSP, initial draft of landlord TYSP provided to sites at budget release.

Consent Order

- **Working with NNSA GC to ensure proposal is consistent with Consent Order.**

- **No issues with current proposal; we can expect FOIA requests for predecisional data.**

- **Predecisional exemption expires when decision is made (President's Budget is issued).**

- **Pre-decisional data may lose FOIA exemption after release of President's Budget. After redaction per FOIA process it may be releasable 18 – 24 months after first posting on NICC.**

- **Narrative TYSP is a good faith communication of actual NNSA plans for site to all stakeholders.**

Data Management Committee

- **Representatives of each site office and M&O.**
- **Advises on all requests to change stable set of infrastructure planning data.**
- **Reviews all requests for new data for ease/cost of collection; advises on most cost effective way to request and collect data.**
- **Advises on need to "push back" on data requests not found cost effective.**
- **Available to all NNSA program offices to vet data needs and to advise on optimum way to collect.**

Data/TYSP Approval

- **Field Office Managers formally designate representative who will upload data/TYSP with electronic signature or other authentication.**

- **No formal acceptance of planning data in repository; Revisions will be requested if non-conformance to specifications makes it unusable; anomalous data will be questioned.**

- **NNSA review and acceptance of TYSP is agreement that TYSP implements President's Budget and other parts of Program of Record.**

- **TYSP's that differ from Program of Record will need revision.**